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Background paper on Waste Management in Northern Ireland

1 Introduction

As requested, the intention of this paper is to provide background information to the Committee in relation to the policy framework for waste management in NI and an overview of responsibilities.

The Paper provides an overview of policy drivers, including a brief consideration of targets, figures and trends. It gives an account of the split of responsibilities across central and local government in NI, including cross border responsibilities. It also considers the regulation of cross border waste movement and highlights a number of measures used to address unauthorised waste activity. Finally, it offers a number of potential considerations for which the Committee may be interested in seeking further information or clarification from the Department.

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2 Policy framework

The following section gives an overview of the main policy drivers for waste management in NI. It details the broad legislative context from the European Union (EU) and national legislation, and considers how these are brought together to provide the main framework for an integrated waste management network in Northern Ireland.

2.1 EU

The EU influences the implementation and delivery of waste management and legislation in Northern Ireland. Examples of key EU waste directives and regulations include, and are not limited to:

- 2008/98/EC Waste Framework Directive
- 1999/31/EC Directive on the Landfill of Waste
- 2004/12/EC Directive on Packaging and Packaging Waste
- 2012/19/EC Directive on Waste Electrical and Electronic Equipment
- 2000/53/EC Directive on the End-of Life vehicles
- 2006/66/EC Directive on Batteries and Accumulators
- 2010/75/EC industrial Emissions Directive
- 2001/42/EC Strategic Environmental Assessment Directive
- 2001/689/EEC Directive on hazardous Waste
- 97/11/EC Environmental Impact Assessment Directive
- 2004/35/EC Environmental Liability Directive
- 1986/28/EC Sewage Sludge Directive
- 2006/21/EC Mining Waste Directive
- Resource Efficiency Roadmap
- New Circular Economy Package and Action Plan.

2.1.1 WFD

The Waste Framework Directive (WFD) provides the overarching framework for all Member States in relation to waste management and includes definitions of waste, sets a hierarchy for waste management, introduces the “polluter pays” principle and “extended producer responsibility” and sets recycling targets. It requires Member States to have in place a waste strategy and waste management plans reflecting its requirements, both of which must be revised every six years.

2.1.2 Circular Economy Package

The European Commission adopted an ambitious Circular Economy Package¹ (**see Annex 1 for definition of the circular economy**) consisting of a new EU Action Plan for the Circular Economy². The new package covers the full economic cycle, not just waste reduction targets. It includes revised legislative proposals on waste, and indicators and incentives to business and consumers to help stimulate Europe's transition towards a circular economy. These include:

- A common EU target for recycling 65% of municipal waste by 2030;
- A common EU target for recycling 75% of packaging waste by 2030;
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030;
- A ban on landfilling of separately collected waste;
- Promotion of economic instruments to discourage landfilling;
- Simplified and improved definitions and harmonised calculation methods for recycling rates throughout the EU;
- Concrete measures to promote re-use and stimulate industrial symbiosis - turning one industry's by-product into another industry's raw material;
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes (e.g. for packaging, batteries, electric and electronic equipment, vehicles).

2.2 Northern Ireland

Many EU requirements are written into national legislation; however, waste is a devolved matter therefore NI can also make its own legislation specific to local needs. This means that not all waste legislation in NI is directly tied to an EU requirement. Examples of both primary and secondary legislation include, and are not limited to the following:

2.2.1 Primary legislation

- Waste and Contaminated Land (Northern Ireland) order 1997 (as amended)
- Waste and Emissions Trading Act 2003
- Environment (Northern Ireland) Order 2002 (as amended)
- Producer Responsibility Obligations (Northern Ireland) Order 1998 (as amended)
- Litter (Northern Ireland) Order 1994
- Clean Neighbourhoods and Environment (Northern Ireland) Act 2011
- Environmental Better Regulation Act.

¹ Circular Economy Package http://ec.europa.eu/environment/circular-economy/index_en.htm

² Action Plan <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015DC0614>

2.2.2 Secondary legislation

- Waste Management Licensing regulations (Northern Ireland)
- The Waste Regulations (Northern Ireland) 2011
- The Landfill Allowances Scheme (Amendment) Regulations (Northern Ireland) 2011
- The Landfill (Northern Ireland) Regulations, 2003 (as amended)
- The Landfill (Amendment) Regulations (Northern Ireland) 2011
- Food Waste Regulations 2015 which prohibits food waste sent to landfill since April 2015.³

The WFD requires Member States to have in place a waste strategy and waste management plans. In response to the WFD, NI produced waste management strategies in 2000, 2006 and again in 2013. These strategies, together with the three sub-regional waste management plans, provide the waste management framework for NI. These are detailed in the following subsections.

2.2.3 NI Waste Management Strategy

The waste management strategy (2013) - *Delivering Resources Efficiency*⁴ - sets the policy framework for the management of waste in Northern Ireland. This is a revised Strategy which retains the core principals of the 2006 Strategy while incorporating the Waste Management Hierarchy of the WFD (Fig 1).

Figure 1: Waste Management Hierarchy of the WFD



Source: European Commission⁵

³ <http://www.netregs.org.uk/legislation/northern-ireland-environmental-legislation/future-legislation/new-duties-for-food-businesses-in-northern-ireland/>

⁴ DAERA (2013) *NI Waste Strategy 2013*. Available at <https://www.daera-ni.gov.uk/publications/delivering-resource-efficiency-northern-ireland-waste-management-strategy>

⁵ EC, *Directive 2008/98/EC on waste (Waste Framework Directive)*. Available at <http://ec.europa.eu/environment/waste/framework/>

Prevention = Avoidance, reduction and re-use; using less hazardous materials

Preparing for re-use = Checking, cleaning, refurbishing, repairing whole items or spare parts.

Recycling = Turning waste into a new substance or product. includes composting if it meets quality protocols.

Recovery = Anaerobic digestion, incineration with energy recovery, gasification and pyrolysis which produce energy (fuels, heat and power) and materials from waste. Some backfilling operations.

Disposal = Landfill and incineration without energy recovery

The old NI Strategy (2006) focused on waste or resource management, this means using resources in a way that reduces the quantities of waste produced, and where waste is generated, to manage it in a way that minimises its impact. It therefore lacked significant emphasis on prevention (and minimisation at source) preparing for re-use and recycling and was subsequently revised in 2013. This was with the view of creating a strategic shift in focus away from resource management, to a renewed focus on resource efficiency. According the NI Strategy, resource efficiency is “*using resources in the most efficient way while minimising the impact of their use on the environment.*”⁶ This corresponds with the concept of the circular economy which in broad terms means the re-use of waste as a resource that can be put back into the production loop. With this in mind the 2013 Waste Strategy has a strong emphasis on both concepts.

For more information on resource efficiency, the circular economy and impacts, see Annex 1.

2.2.4 Targets, figures and trends

Waste generated: Total local authority collected (LAC) municipal waste⁷ in Northern Ireland (April to June 2016) was 262,883 tonnes, a **3.5% increase on the same period in 2015** (254,007 tonnes).⁸

Recycling rate: Both the revised NI Strategy and last Programme for Government (2011-2015)⁹ proposed a target of 45% recycling rate for household waste by 2015, so as to help contribute towards the EU statutory target of 50% by 2020. However NI just

⁶ DAERA (2013) NI *Waste Strategy 2013*. Available at <https://www.daera-ni.gov.uk/publications/delivering-resource-efficiency-northern-ireland-waste-management-strategy>

⁷ Municipal waste is defined by DAERA as all of the waste from households (88.1% of municipal waste is household waste) and also includes waste collected from civic amenity sites and some commercial waste. Northern Ireland Environmental Statistic Report (March 2016) p.86 <https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2016>

⁸ DAERA (2016) Northern Ireland Local Authority Collected Municipal Waste Management Statistics Quarterly provisional estimates for April to June 2016. <https://www.daera-ni.gov.uk/system/files/publications/daera/lac-municipal-waste-q1-2016-17.pdf>

⁹ PFG 2011-2015 <https://www.northernireland.gov.uk/publications/programme-government-2011-2015>

fell short of this target by achieving a recycling rate (including composting) of 42% for household waste in 2014/2015.¹⁰ Most recent statistics for April to June 2016 show the recycling rate for household waste increased to 46.4%.¹¹

The current recycling rate for municipal waste is 46.2%. With this in mind, the revised strategy also provides for the possibility of an ambitious 60% recycling rate of local authority collected municipal waste by 2020.

It should be noted that household waste accounts for about 88.1% of municipal waste, the rest of which comes from civic amenity centres and some commercial waste.¹² This should be taken into consideration when comparing targets and figures.

Recovery: The LAC municipal waste energy recovery rate was 16.0%, an increase compared to the equivalent 2015 rate of 14.6%.¹³

Landfill rate: Targets are set under the NI Landfill Allowance Scheme (NILAS). NI reached its last target of reducing the amount of household waste sent to landfill to 50% by 2013, by reaching 48.6% according to 2013/14 figures.¹⁴ Most recent figures for 2016 (April to June) show levels have been reduced further to 37%¹⁵. The next target under the NILAS is to reach 35% by 2020.¹⁶

PFG

The draft PFG (2016-2021), currently out for consultation, is outcomes based and does not contain any specific targets for waste and recycling. It identifies that Outcome 2 - *We live and work sustainably - protecting the environment*- will use the indicator of the % of household waste that is reused, recycled or composted.¹⁷ Attached to the PFG is a number of action plans for each indicator. The Action Plan for the % of household waste recycled etc. identifies who will be responsible and how they will achieve the outcome.¹⁸

The key delivery partners, and the particular roles, are shown in the following table from the Action Plan:

¹⁰ Northern Ireland Environmental Statistic Report (March 2016) p.87 <https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2016>

¹¹ DAERA (2016) Northern Ireland Local Authority Collected Municipal Waste Management Statistics Quarterly provisional estimates for April to June 2016. <https://www.daera-ni.gov.uk/system/files/publications/daera/lac-municipal-waste-q1-2016-17.pdf>

¹² DAERA *Northern Ireland Environmental Statistic Report* (March 2016) p.86 <https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2016>

¹³ *ibid* p.2

¹⁴ *ibid* p.99

¹⁵ *ibid* p.89

¹⁶ DAERA NILAS <https://www.daera-ni.gov.uk/articles/northern-ireland-landfill-allowance-scheme-nilas>

¹⁷ PFG Consultation Document <https://www.northernireland.gov.uk/sites/default/files/consultations/newnigov/pfg-consultation-document.PDF>

¹⁸ PFG Action Plan for % recycled waste Indicator

<https://www.northernireland.gov.uk/sites/default/files/publications/newnigov/dp-household-waste-that-is-reused.PDF>

Key Partner	Their Role
DAERA	Policy, legislation and funding support
Local Councils	Introduction of new, or improvements to, recycling infrastructure and services
Waste Management Groups	Support to local councils
WRAP	Technical and research support to DAERA and local councils
eNGOs	Support to shape behaviour change

Source: PFG Action Plan¹⁹

The Action Plan proposes to:

- Deliver a communications campaign to build public awareness, understanding of and confidence in recycling
- Undertake a Recycling Gap study to identify kerbside recycling options
- Provide £2.5m to the Rethink Waste Capital fund in 2016/17 with further government support planned for successive years
- Support the development of strategic infrastructure for treating and recovering waste; and
- support separate treatment of food waste

However, these are proposals and the draft PFG does not appear to include any specific targets to measure performance against. The draft is currently out for consultation and closes 23rd December 2016.

Trends

According to a briefing provided to the new Councils and supported by DAERA, NILGA, SOLACE and the Strategic Investment Board on *The Future Management of Northern Ireland's Municipal Waste 'The World Has Changed'* (June 2016) Northern Ireland trends include²⁰:

- Waste tonnages are on the rise again
- Recycling rates are starting to plateau

¹⁹ ibid

²⁰ DAERA, NILGA et al (2016) *The Future Management of Northern Ireland's Municipal Waste 'The World Has Changed'*. Available at <https://www.causewaycoastandglens.gov.uk/council/minutes/6th-september-2016-environmental-services>. (Item 10)

- Tonnages going to landfill continue to fall
- Volume of Refuse Derived Fuel being exported is growing year on year in absence of indigenous infrastructure
- Waste crime has distorted the local market
- NI is unlikely to meet the revised Waste Framework Directive target of 50% recycling by 2020 on the current trajectory
- Proposed EU Circular Economy targets will only heighten the need for infrastructure and increased recycling

2.2.5 Waste management plans

Waste management plans (WMPs) provide the framework for waste management including requirements for collecting, recovering, treating and disposing of waste in each local authority. Local councils have formed waste management groups to assist them in adhering to their legal responsibilities in relation to the development and delivery of waste management plans and infrastructure. Currently NI has two waste management groups:

- arc21 consisting of Mid and East Antrim; Antrim and Newtownabbey; Belfast, Lisburn and Castlereagh; Ards and North Down; and Newry, Mourne and Down.
- NWRWVG (North West Region Waste Management Group) – Derry City and Strabane; and Causeway Coast and Glens.
- Swamp 2008 was dissolved in 2015. The three new councils in that area- Armagh City, Banbridge and Craigavon; Fermanagh and Omagh and Mid Ulster- decided not to continue as part of a joint management group post re-organisation in 2015. These councils are still to determine whether they collaborate on waste either formally or informally.

There are currently three Waste Management Plans covering Northern Ireland. The arc21 plan, has been determined by the Department and ratified by 5 of the 6 Councils. The NWRWVG plan has been submitted to the Department for determination. A plan on behalf of the remaining three councils (formerly covered by SWaMP 2008) has been submitted also.

2.2.6 Waste Prevention Programme

The WFD also requires Member States to have established waste prevention programmes by the end of 2013, to be revised every six years.

The Waste Prevention Programme for NI “The Road to Zero Waste” was published in September 2014²¹. With no specific headline target, it sets out 13 actions to target waste prevention. Many of the actions are programmes or projects to educate the public, businesses and the industry in general about waste prevention measures and benefits. For example:

- A stakeholder forum for a repair and re-use network;
- A communications campaign linking ‘Rethink Waste Campaign’ with ‘Love Food, Hate Waste’ and waste prevention measures;
- Continuing eco-schools and eco-homes programmes;
- Giving support for ‘Zero waste projects’ through the Rethink Waste Fund and support to the Third Sector for business growth; and
- Voluntary construction sector schemes and agreements.

However, most of these actions are driven by central government and are not the responsibility of local government. That being said, local government may play a key role in facilitating, co-ordinating and leading the main players and stakeholders that most of these actions are aimed at.²²

²¹ Waste Prevention Programme NI <https://www.daera-ni.gov.uk/publications/waste-prevention-programme-northern-ireland-road-zero-waste>

²² NILGA (2015) *Councillor’s Reference for Waste and Resource Efficiency* <http://www.nilga.org/getattachment/24d2b81e-97e0-49e2-9dfc-599f792a5108/Councillors-Reference-Guide-to-Waste-and-Efficienc.aspx>

3 Waste management responsibilities

In NI, responsibilities are split as follows:

Responsible Dept./Agency/body	Area of responsibility
DAERA	The development of waste management legislation and policy. Also allocates the landfill allowance for each district council, in accordance with the Landfill Directive, under the Landfill Allowance Scheme (NILAS). ²³
NIEA	<p>1. The regulation and enforcement of waste and its disposal through:</p> <ul style="list-style-type: none"> • Waste management licences –these are required for the depositing, keeping, treating or disposal of waste in Northern Ireland under the Waste Management Licensing regulations (Northern Ireland) 2003 and the Waste and Contaminated Land (Northern Ireland) Order. • Discharge Consents – Under the Water (Northern Ireland) Order 1999, consent by NIEA may be required to discharge any trade or sewage effluent from commercial, industrial or domestic premises into waterways or water contained in any underground strata. • Regulates and controls the export and import of waste to and from NI through shipments of waste regulations. • Maintains a register of waste carriers <p><i>It should be noted that the licensing process is under change through the Environmental Better Regulation Act 2016. It aims to streamline environmental permitting, by coordinating the existing separate regimes into a single system. Details are dependent on secondary legislation.</i></p> <p>2. Crime enforcement The NIEA's Environmental Crime Unit (ECU) was set up to investigate and prosecute serious and ongoing environmental crime such as illegal disposal or burning of waste, including fuel laundering waste.²⁴</p>
Local Councils	Statutory responsibility for the collection and disposal of municipal waste. Planning- planning permission may be required from the local Planning Authority for any waste activity or facility. If considered of regional significance, then this is dealt with by the Department for Infrastructure.
Waste Management Groups	Set up under the Local Government Act, these are responsible for assisting their constituent councils in adhering to their legal responsibilities for drawing up and delivering waste management plans and infrastructure. However not all councils are part of a waste management group and are responsible for their own waste management.
Private Sector	Provide collection and treatment of commercial waste services to councils
WRAP	Funded by NI government it has a delivery role of programs, initiatives and interventions to encourage the public and businesses to reduce waste and increase recycling. ²⁵

²³ For Northern Ireland, as with the rest of the UK the targets are to reduce the amount of bio-degradable municipal waste sent to landfill to 35% of 1995 levels by 2020

²⁴ Mills Report (2013) <https://www.daera-ni.gov.uk/publications/review-waste-disposal-mobuoy-site-and-lessons-learnt-future-regulation-waste-industry> p.13

²⁵ WRAP NI <http://www.wrapni.org.uk/content/about-us-ni>

The Department should be able to provide a breakdown of the costs of waste management across each of the responsible delivery bodies.

3.1 Cross border responsibilities

In the Republic of Ireland the Department of Housing, Planning, Community and Local Government sets waste policy²⁶, The Environmental Protection Agency (EPA) and the local authorities act as environmental regulators and while the local authorities are also responsible for household waste collection and disposal, this service has been contracted out to private operators almost completely. The National Transfrontier Shipment of Waste Office (NTFSO), part of the EPA, is responsible for the import and export of waste (including cross-border movement).

Similar to NI, local authorities have come together to form sub-regional waste management groups:

- Connacht Ulster Region – Mayo, Donegal, Cavan, Monaghan, Leitrim, Roscommon, Sligo, Galway City and Galway County²⁷;
- Eastern Midlands Region - Dublin City, Fingal, Dun Laoghaire, South Dublin, Longford, Westmeath, Kildare, Offaly, Louth, Laois, Meath & Wicklow²⁸;
- Southern Region - Carlow, Clare, Cork City, Cork County, Kerry, Kilkenny, Limerick, Tipperary, Waterford, Wexford²⁹.

The following map (Fig 2) shows the waste management groups within the cross border region.

The grey shading represents the area formerly covered by SWaMP2008. The three new councils previously covered by SWaMP 2008 are still to determine whether they will collaborate on waste either formally or informally.

The map demonstrates that the waste management groups and councils involved in the cross border area include:

- NWRWVG;
- ARC21;
- Armagh City, Banbridge and Craigavon;
- Fermanagh and Omagh;
- Mid Ulster;

²⁶ Department of Housing, Planning, Community and Local Government [online] Waste <http://www.housing.gov.ie/environment/waste/waste>

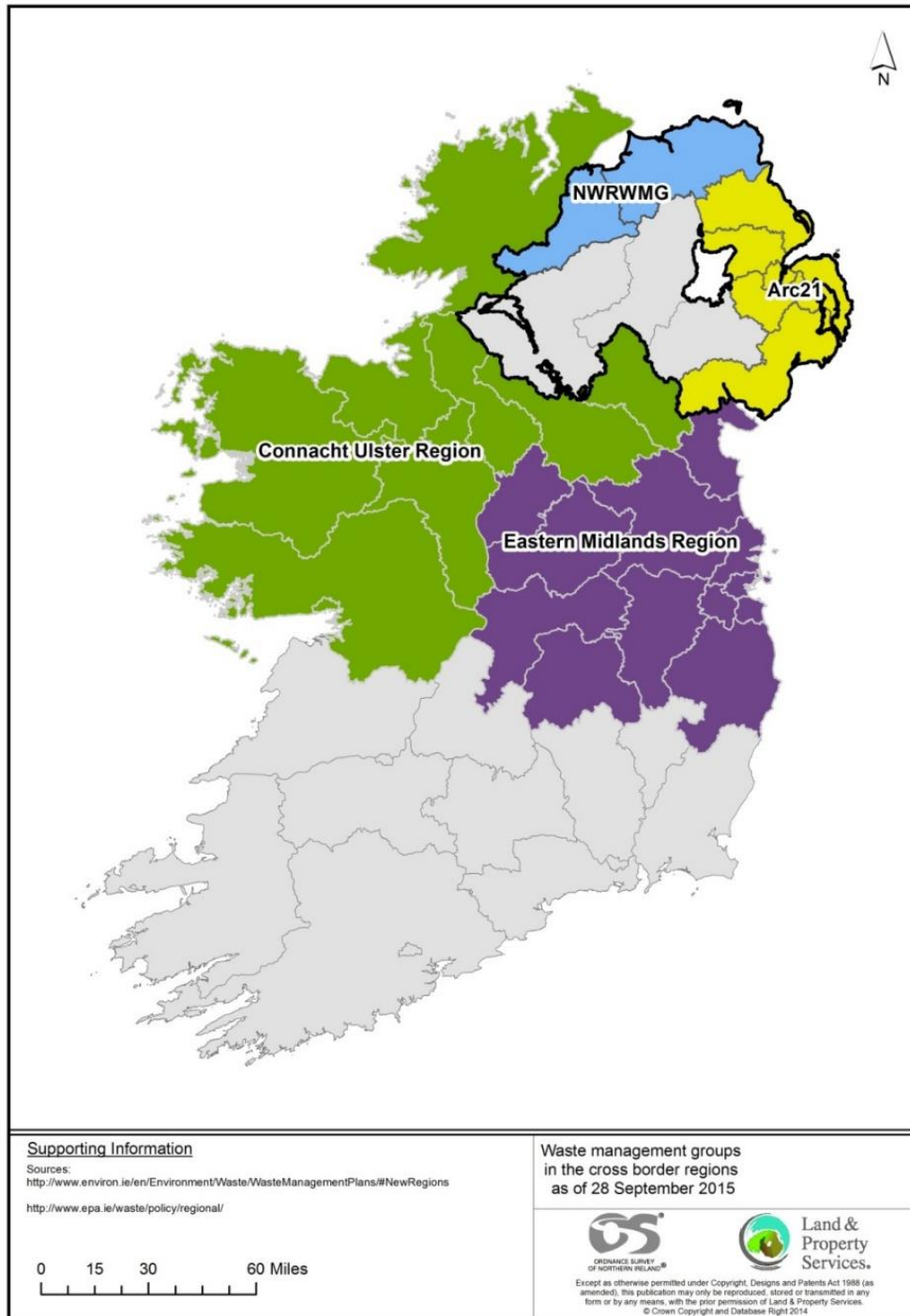
²⁷ Connacht Ulster Regional Waste Management Plan (2015-2012) Part 1 p.1 <http://www.curwmo.ie/>

²⁸ Eastern and Midlands Waste Region <http://emwr.ie/>

²⁹ Southern Region <http://www.envron.ie/en/Environment/Waste/WasteManagementPlans/#NewRegions> and <http://southernwasteregion.ie/>

- Connacht and Ulster Region; and
- Eastern Midlands Region.

Figure 2: Waste management groups in the border region



Source: RaISe Statistics and GIS Team

4 Regulation of cross border waste movement

Importing and exporting of waste to and from the ROI is dealt with by the NIEA and the National Transfrontier Shipment of Waste Office (NTSFO) in the ROI. The EU Waste Shipment Regulation 2006 also incorporates the provisions of the Basel Convention, which addresses the movement of hazardous waste. The Regulations set out the rules for cross-border shipments of waste within, to and from the EU area. These are transposed nationally through UK and RoI regulations.³⁰

The regulations generally refer to shipments of green and amber list waste for recovery within and from the EU. Under the regulations, green list waste is considered not to represent a significant risk to the environment or human health³¹. Amber list waste is considered to be potentially harmful to the environment and human health.³² It is considered hazardous when it displays properties such as being explosive, oxidising, flammable, toxic, carcinogenic, corrosive or infectious. Green list waste is not subject to the same procedure of consent and notifications as amber listed waste.³³

According to the NTFSO, one of the destinations for the export of green and amber list waste is Northern Ireland. In addition, the RoI also imports green and amber listed waste from Northern Ireland. The NTFSO monitors these movements as a part of their overall responsibility for waste shipments. They operate a two tier system whereby amber-listed waste movements between the RoI and Northern Ireland must be notified to the NTFSO and the Northern Ireland Environment Agency (NIEA). Green list waste requires soft compliance (i.e. it does not need to be notified) however, anyone registered with the NTFSO must file a quarterly green list report.³⁴

Registers for Green and Amber listed waste for the RoI are available [here](#) Based on the figures provided:

- total amber list waste imported to the RoI in 2015 was 55,719.9964 metric tonnes (t); of which 55,230.0824 t (99%) was from NI; for 2014 it was 94%.
- total amber list waste exported from the RoI in 2015 was 898,555.9964 t, of which 171,501.617 t (19%) was to NI; for 2014 it was 20%.

According to the EPA (2016), in 2014 only 1% of hazardous waste exports were exported to Northern Ireland, as shown in Fig 3³⁵. Under the Waste Shipment Regulations, not all amber list waste is considered hazardous waste which explains

³⁰ These are transposed IN Northern Ireland by the [Transfrontier Shipment of Waste Regulations 2007](#) as amended by the [2014 Regulations](#)

³¹ Examples include glass fibre waste, electronic scrap and certain types of solid plastic waste.

³² Examples include sewage sludge, hydraulic fluids, unrefined calcium sulphite and wastes from the manufacture of iron and steel.

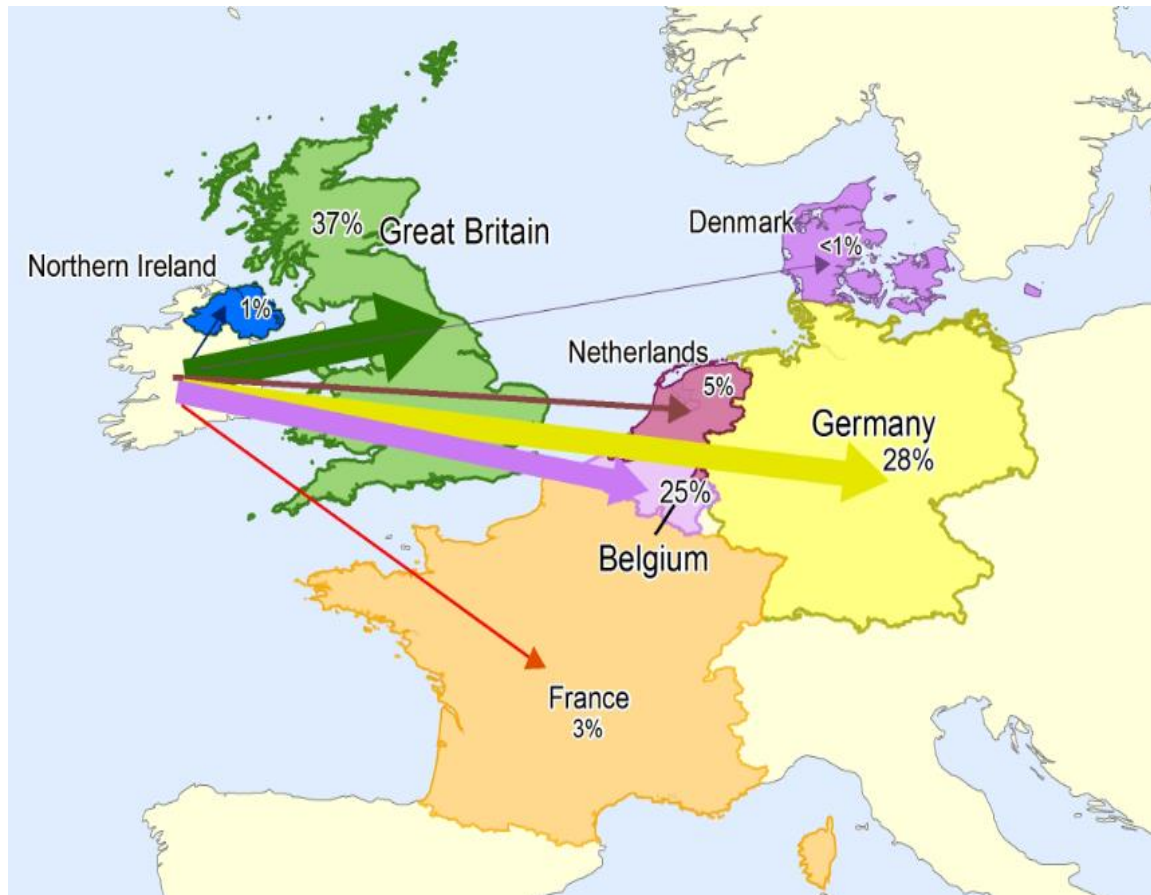
³³ Comptroller Auditor General (CAG) 2014. *Transshipment of waste, report 84* p.19. Available at <http://www.audgen.gov.ie/viewdoc.asp?DocID=2043>

³⁴ Information provided by the Oireachtas through communications with NTFSO October 2015.

³⁵ EPA, 2016. Hazardous Waste Data for Ireland 2014 – Figure 2: Destinations of hazardous waste exports 2014. Available at <http://www.epa.ie/pubs/reports/waste/stats/hazardouswaste2014/>

why the figure for hazardous waste is much smaller compared to amber list exports for the corresponding year.

Figure 3: Main destinations of hazardous waste exports (including contaminated soil)



Source: EPA, NTFSO (2016)

4.1 Unauthorised waste activity

While responsibility for waste management either side of the border lies with the respective jurisdictions, there has been identification of the need for co-ordination between both governments. The NI Waste Management Strategy (2013) states that

The Department and the Department of the Environment, Community and Local Government (DECLG) along with the NIEA and the Environmental Protection Agency (EPA) work closely on the development, implementation and enforcement of waste policy and legislation.³⁶

³⁶ DAERA (2013) NI Waste Strategy 2013. Available at <https://www.daera-ni.gov.uk/publications/delivering-resource-efficiency-northern-ireland-waste-management-strategy> P.18

The NI Strategy seeks to take an all-island approach to a number of specific waste policy areas including “co-operation in enforcement activities”. According to the NI Strategy, the DoE worked with DECLG in dealing with the consequences of large scale illegal landfilling of waste from Ireland in the early part of the last decade.

Some of the measures taken by NI for tackling illegal waste include:³⁷

- Review of waste regulation in the form of the Mills Review 2013
- The set-up of an Environmental Crime Unit in 2008 as part of NIEA to provide expertise in criminal and financial investigations;
- Development of a strategic partnership with PSNI covering all environmental crime involving the exchange of information and joint working where appropriate;
- NIEA also takes an active role in the Cross-Border Fuel Fraud Group under the auspices of the multi-agency Organised Crime Task Force (OCTF) to tackle the issue of waste residue resulting from illegal fuel laundering.

These are explored in more detail in the following section.

4.1.1 Measures for tackling illegal waste issues

Road Map and Government Framework Agreement

After the discovery of illegal waste in Northern Ireland which had originated in the RoI, in 2007 both governments worked together to develop a Road Map for tackling illegal movement between both jurisdictions³⁸. This resulted in a government framework agreement between the DECLG and the Northern Ireland Department of Environment in 2009. The framework agreement sets out how the illegal waste will be repatriated and identifies the roles of the relevant authorities in arranging the necessary contracts and the liability falling to each jurisdiction. It is set within the legal context of the 2006 EU Shipment of Waste Regulation.

The framework agreement includes for the Republic to cover the full costs of disposal of the waste and 80% of the repatriation costs (excavating and removing the waste and remediating the sites) with Northern Ireland meeting 20% of these costs.³⁹

³⁷ ibid

³⁸ DAERA (2013) *NI Waste Strategy 2013*. Available at <https://www.daera-ni.gov.uk/publications/delivering-resource-efficiency-northern-ireland-waste-management-strategy> P.55

³⁹ Northern Ireland Executive, 2009. *An agreement has been reached with the Irish Government to remove waste, originally from the Republic, which was illegally dumped over the border – Friday 9th June* [online]. Available at: <http://www.northernireland.gov.uk/news/news-doe/news-doe-june-2009/news-doe-120609-minister-announces-agreement.htm>

Review of waste management

The 2015/16 NIEA Annual Accounts report an estimated 913,105m³ of illegally disposed waste was found at Mobuoy in the north west; with an additional estimate of 252,050m³ of controlled waste present in the former licensed landfill area, some of which has been illegally disposed. NIEA has informed that:

... environmental monitoring of the site continues and an assessment of the risks is being progressed. The key priority is to protect the River Faughan and ensure that the site clean-up provides value for money. This ongoing assessment of the risks will inform the remediation strategy to protect water quality of the River Faughan. Also the Department has established a Mobuoy Stakeholder Group composed of over 20 interested parties. Project information is being made accessible on the Department's Mobuoy publications web page (<https://www.daera-ni.gov.uk/publications/mobuoy-road-waste-project>).⁴⁰

Following the discovery of the illegal waste site at Mobuoy Road, the then Minister for the Environment, Mr. Alex Attwood, commissioned an Expert Reviewer to perform a review of waste regulation in NI, identifying lessons from the experiences at Mobuoy. In light of this, the Mills Review was produced in 2013. In general, the report:

- Provides an overview of what happened at the Mobuoy site and the waste facility at Campsie, identifying failures in the regulation of the site in respect to central government;
- Identifies the external factors leading to the extensive illegal waste dumping at the site; and
- Explores lessons learnt for the future development and administration of waste management, resource efficiency and enforcement programmes.

Key recommendations from the report are available in Appendix 2, and it may be of interest to get an update on the progress of the recommendations from the new Department.

The ECU

The NIEA's Environmental Crime Unit (ECU) was set up to investigate and prosecute serious and ongoing environmental crime.⁴¹ ECU participates in the Organised Crime Task Force in its Cross Border Fuel Fraud and Criminal Finance Groups.⁴²

In 2012, a strategic partnership was set up between ECU and PSNI.

⁴⁰ NIEA Annual Report and Accounts 2015-2016. Available at <https://www.daera-ni.gov.uk/publications/northern-ireland-environment-agency-annual-report-and-accounts> p.19/20.

⁴¹ Mills Report <https://www.daera-ni.gov.uk/publications/review-waste-disposal-mobuoy-site-and-lessons-learnt-future-regulation-waste-industry> p.13

⁴² CJI (2015) A Review of the Northern Ireland Environment Agency's Environmental Crime Unit <http://www.cjini.org/TheInspections/Inspection-Reports/Latest-Publications.aspx?did=1487> p.32

The Criminal Justice Inspection for Northern Ireland conducted a review of the ECU in May 2015 and concluded that,

The NIEA should conduct a strategic assessment of the waste sector in Northern Ireland, including illegality in the regulated and non-regulated sectors. This should incorporate the risk of transfer of waste from and to Northern Ireland⁴³.

Repatriation Programme 2015

Between 2002 and 2004 an estimated 250,000 tonnes of municipal and commercial waste originating in the RoI was illegally dumped at 17 unlawful sites in Northern Ireland. The DECLG consider that the main factor contributing to this illegal dumping was the substantial jump in the cost of landfilling waste in the Republic (from an average of €40/t in 2000 to €140/t in 2004).⁴⁴

The cross-border waste repatriation programme, which began work in 2010, aims to tackle long-standing sites containing unauthorised deposits of waste originating from the RoI. To date, it is estimated that about 31% of the illegally dumped waste has been repatriated from NI. The task of excavating sites and transporting the waste to licensed landfills in the RoI is still in progress with an expected completion date of 2018.⁴⁵

According to the report from the Comptroller and Auditor General (CAG) in 2014, the direct costs to the RoI by the end of 2012, after the clearance of five sites, totaled just over €5.4 million.⁴⁶ At a meeting of the North-South Ministerial Council in October 2012, it was reported that the final cost of the repatriation programme could be in the order of €30 million. However, the DECLG now expects the final cost to be lower than that.⁴⁷

Examinations of sites are continuing, however, according to the CAG:

.... while cases have previously been taken relating to illegal movements of waste to Northern Ireland, there have been no prosecutions in Ireland to date in respect of the illegal dumping that led to the current repatriation exercise⁴⁸

Fly tipping Partnership

This was set up as a pilot scheme in 2012 to tackle fly tipping in NI, and was extended to March 2015. 21 of the former local councils signed up to it, and after council reduction in 2015, NIEA details that it continued to work with the new councils. According to NIEA, under the pilot agreement, it organised the collection and disposal

⁴³ CJI (2015) A Review of the Northern Ireland Environment Agency's Environmental Crime Unit <http://www.cjini.org/TheInspections/Inspection-Reports/Latest-Publications.aspx?did=1487> p.22

⁴⁴ CAG 2014. *Transshipment of waste, report 84* p.33. Available at <http://www.audgen.gov.ie/Viewdoc.asp?DocID=2043>

⁴⁵ Ibid p.35

⁴⁶ Ibid p.10

⁴⁷ Ibid p.33

⁴⁸ Ibid p.11

of fly tipped waste for 153 incidents amounting to over 1,035 tonnes of waste. Waste types included asbestos, fuel laundered waste and waste tyres.

Many of the measures mentioned in section 4.1.1 were adopted before departmental re-organisation and it may be useful to get an update on measures from the new Department's perspective.

5 Potential Considerations

5.1 Draft Action Plan

The current Waste Management Strategy 2013-2020 is due to end in four years' time. Momentum has been building for the review of waste management and service provision in NI since local government reform in 2015 and the Mills Report in 2013. A Draft Action Plan has been developed jointly by central and local government to ensure NI reaches its targets to 2020 and beyond. It details where responsibilities should lie; what should be achieved; by when and how. ***The Committee may be interested to get an update from the Department on this draft action plan particularly with regard to some of the areas highlighted in the below sections.***

5.2 Commercial, Industrial and Construction Waste

Current statistical reports from the Department mainly report on municipal and household waste. There is currently no mandatory reporting requirement for commercial and industrial (C&I) waste in NI. To date figures provided are only estimated through surveys. According to latest estimates, in 2009 there were almost 1.3 million tonnes of C&I waste collected in NI. With no mandatory targets in the current strategy, the 2006 Strategy contained a non-statutory target of 60% of C&I waste to be recycled by 2020. The EU has discussed the idea of introducing C&I recycling targets, however these were not included in the recently published Waste to Energy Roadmap. Despite this, calls have been made by the European Federation of Waste Management and Environmental Services (FEAD) to include C&I waste by the end of the year.⁴⁹ In 2011, targets for municipal waste sent to landfill were to include commercial waste under the Landfill (Maximum Landfill Amount) Regulation 2011.⁵⁰

Given these developments, it may be of interest to find out whether mandatory reporting requirements and recycling targets for C&I waste will be made in any new policy development by the Department

⁴⁹ FEAD comments on the European Commission's Roadmap on Waste to Energy (2016). Available at <http://www.fead.be/position-papers>

⁵⁰ DAERA [online] *Landfill* <https://www.daera-ni.gov.uk/articles/landfill>

Latest figures for construction waste in NI are from 2009/10 and estimated just over 3.5 million tonnes of construction and demolition waste in NI.⁵¹ Considering the significant amount of this waste, and the WFD recovery target of 70% for all non-hazardous Construction and Demolition waste by 2020, will ***there be a more formalised mechanism/requirement for reporting this waste, rather than relying on estimated survey figures?***

5.3 Waste licensing changes

As discussed in section 3, the licensing process is under change through the Environmental Better Regulation Act which aims to streamline environmental permitting, by coordinating the existing separate regimes into a single system. ***However, details are dependent on secondary legislation and it may be of interest to get an update from the Department in relation to this.***

5.4 Scrap Metal

During the last mandate, a Private Member's Bill on Scrap Metal Licensing was introduced, but did not progress beyond Consideration Stage. The aim of the Bill was to address the problem of metal theft through introducing a new licensing scheme for scrap metal operators. However, the Department (DoE at the time) questioned the need for a new Bill on the basis that:

- The regulation of all waste operators, which includes scrap metal dealers, has been (and is being) tightened significantly to deal with the environmental risks associated with illegal waste operators.
- Since the consultation on the Bill in 2012, a number of measures placing more stringent controls on waste operators and waste carriers have been introduced.
- The Department has a sufficient legislation review programme to allow it to clamp down on illegal waste activity, which will in turn assist the PSNI in preventing and investigating metal theft.

The Committee may find it of interest to ask the Department for an update on the above, particularly in relation to the tightening of the regulation of all waste operators.

5.5 Brexit

In light of the Brexit vote, it may be of interest to find out from the Department if a legislative review will be conducted on waste legislation derived from the EU, so as to consider what it intends to retain. For example in relation to resource

⁵¹ Construction, demolition and excavation waste arisings, use and disposal in Northern Ireland 2009 -10. <https://www.daera-ni.gov.uk/publications/construction-demolition-and-excavation-waste-arisings-use-and-disposal-northern-ireland>

efficiency and the circular economy, a DEFRA study identified up to £22 billion in saving available to UK businesses from more efficient use of raw materials and avoiding waste.⁵² This may help determine from the UK's perspective whether existing legislation will remain unchanged or even tightened to support and encourage the growth of this industry.

As identified in section 4, the co-ordinated approach to waste management both sides of the border is essential in controlling the movement and disposal of legal and illegal waste. Given that post- Brexit the RoI will continue to work to EU requirements and regulation, ***it may be of interest to find out what discussion there has been in relation to the impact, either side of the border, given that NI could potentially work to a different framework with fundamental differences in levies, controls and levels of regulation.***

5.6 Waste to Energy

As part of its Circular Economy Package, the EU published a communication on [its Waste-to-Energy \(WtE\) Roadmap](#) in February this year. This stressed the important role that energy from waste will need to play for waste that is either recycling residue or non-recyclable for technical, environmental or economic reasons. According to a briefing provided to the new Councils (supported by DAERA, NILGA, SOLACE and the Strategic Investment Board) on *The Future Management of Northern Ireland's Municipal Waste 'The World Has Changed'* (June 2016)⁵³, a study by the Strategic Investment Board on the circular economy suggested:

..that NI is likely to require a thermal treatment capacity of around 600,000 tonnes and potentially up to 800,000 tonnes per year; which is two to three times the current estimated need. At present there is no appropriate thermal treatment infrastructure in place locally, and we are exporting waste for recovery in the form of Refuse Derived Fuel

In light of this, **it may be of interest to find out what capacity NI has for thermal treatment infrastructure and whether the Department has any plans to develop this area.** Also, given that plans to support waste to energy are through the EU's developing Circular Economy Package, **could any consideration into developing and investing in both these areas be postponed in light of the Brexit vote?**

Food waste

⁵² DEFRA The Economics of Waste and Waste policy (2011) <https://www.gov.uk/government/publications/the-economics-of-waste-and-waste-policy>

⁵³ DAERA, NILGA et al (2016) *The Future Management of Northern Ireland's Municipal Waste 'The World Has Changed'*. Available at <https://www.causewaycoastandglens.gov.uk/council/minutes/6th-september-2016-environmental-services>. (Item 10)

Following the EU Resource Efficiency Roadmap aims to halve the disposal of edible food waste by 2020, NI introduced the Food Waste Regulations. The regulations are designed to:

... prevent waste going to landfill by encouraging the source segregation and separate collection of food waste and subsequent banning of separately collected food waste from landfill.⁵⁴

This is to be achieved through the introduction of the following measures:

- A prohibition on the landfilling of separately collected food waste from 1 April 2015;
- A duty on businesses to ensure food waste is not deposited in a lateral drain or sewer from 1 April 2017;
- A duty on food businesses to present food waste for separate collection. Food businesses that produce over 50kg of food waste per week had to comply by 1 April 2016; and food businesses that produce over 5kg of food waste per week and Health and Social Care trusts, will have to comply by 1 April 2017. This duty does not apply to food businesses that produce less than 5 kg of food waste per week, or food waste that has arisen from international travel;
- An obligation on councils to provide receptacles for the separate collection of food waste from households by 1 April 2017; and
- An amendment of the duty of care, waste management licensing and pollution prevention and control regimes to ensure that separately collected food waste is not mixed with other wastes during transport and is only mixed with other waste during treatment when such mixing will not hamper future recycling.⁵⁵

However, does NI have the resources and infrastructure in place to deal with the increased collection of food waste, its conversion to energy (e.g. using anaerobic digestion) and in terms of education to try and reduce the amount of food being thrown away?

For example, on 21 May 2015, France's National Assembly agreed to an amended Energy Transition Law⁵⁶ to introduce a new provision that would require large supermarkets to donate unsold food to charity or have it turned into animal feed, compost or energy from July 2016.⁵⁷

The law obliges supermarkets of 400m² or more to enter into a food donation contract with a charity or face a fine of €75,000 or two years in jail.⁵⁸

⁵⁴ The Food Waste Regulations (Northern Ireland) 2015, Explanatory Memorandum, http://www.legislation.gov.uk/nisr/2015/14/pdfs/nisrem_20150014_en.pdf

⁵⁵ *Ibid*

⁵⁶ Resource, Technicality scraps French Food Waste Law (21 August 2015) <http://resource.co/article/technicality-scraps-french-food-waste-law-10417>

⁵⁷ EU Food Law, France passes food waste law (22 May 2015) <http://www.eurofoodlaw.com/policy/environment/waste-management/france-passes-food-waste-law-108930.htm>

⁵⁸ *Ibid*

5.7 Single Waste Authority

Discussions have been in circulation in relation to the review of existing governance arrangements and the introduction of a Single Waste Authority in NI. DoE consulted on this back in 2009⁵⁹, however, ***the Committee may be interested to find out the new Department's view on this.***

5.8 Advice

It may be of interest to find out the status of the following two groups:

- **The Waste Programme Board** is a “non-statutory advisory committee” which serves to hold to account those bodies responsible for delivering waste management. It is chaired by the Minister and made up of department officials and representatives from NILGA, the waste management groups and the construction, business and NGO sectors.⁶⁰
- **The Waste Co-ordination Group** which was established in 2015 as a “non-executive advisory Group” serving to assist the Waste Programme Board in the delivery of its objectives in partnership with local government.

The Department may be able to inform the Committee as to whether this committee and group will be continued under the new departmental structures, and if not, detail what measures will be in place to replace this level of advice at the executive and non-executive level.

⁵⁹ TheyWorkForYou, *NI Assembly: Single Waste Authority* (October 2010) <https://www.theyworkforyou.com/ni/?id=2010-10-05.6.33>

⁶⁰ DAERA Waste Programme Board and Waste Co-ordination Group <https://www.daera-ni.gov.uk/articles/waste-programme-board-and-waste-co-ordination-group>

Annex 1: What is resource efficiency and the circular economy?

Resource Efficiency

Resource efficiency is about tackling overuse of resources and waste during the creation of products and services. The NI Waste Management Strategy (2013) defines resource efficiency as

*...using resources in the most efficient way while minimising the impact of their use on the environment*⁶¹

This is in line with the definition given in the European Commission's Europe 2020 Strategy (the EU's growth strategy for the economy)⁶². It also closely mirrors the description by WRAP⁶³ that it is a process for "*gaining maximum output from minimum input*"⁶⁴

Circular Economy

A mutual concept to that of resource efficiency is the idea of a circular economy. According to the Commission, a circular economy means re-using, repairing, refurbishing and recycling existing materials and products so that what used to be classed as waste is turned into a resource to be used again. This is in an effort to move the economy away from the current linear system, so that resources are not thrown away once they are used, but put back in the production loop and used for longer.⁶⁵

Impacts

Using resources in a "resource efficient" manner may generate fewer greenhouse gases (GHGs) while still obtaining the same level of output. WRAP looked at resource efficiency's possible contribution to the UK reaching its targets. It demonstrated that

⁶¹DAERA (2013) *NI Waste Strategy 2013*. Available at <https://www.daera-ni.gov.uk/publications/delivering-resource-efficiency-northern-ireland-waste-management-strategy> (p.6)

⁶²European Commission, *Europe 2020 targets* [online]. Available at http://ec.europa.eu/europe2020/europe-2020-in-a-nutshell/targets/index_en.htm

⁶³WRAP promotes waste reduction, use of sustainable products and resource efficiency among businesses, local authorities and communities. It is funded by Defra, Scottish Government, the Welsh Government, the Northern Ireland Executive, and the European Union. More information can be accessed here <http://www.wrap.org.uk/>

⁶⁴WRAP Full report (2010) *Securing the Future: The Role of Resource Efficiency* <http://www.wrap.org.uk/content/meeting-uk-climate-change-challenge-0> (p.7)

⁶⁵EC (2014) '*Towards a Circular Economy: A Zero Waste Programme for Europe*'. Available at <http://ec.europa.eu/environment/circular-economy/>

implementing 13 specific resource efficiency strategies (See Table 1) could provide 10% of the target reduction in UK domestic GHG emissions by 2020.⁶⁶

However, the impacts were not considered to be confined to addressing climate change alone. A more recent report by WRAP, in 2010, demonstrated that the 13 resource efficiency strategies could also reduce the UK’s water use, reliance on specific materials and ecological footprint.⁶⁷

Table 1: Summary of 13 resource efficiency strategies

Production strategies	Consumption strategies
<ul style="list-style-type: none"> ■ Lean production (e.g. light weighting) ■ Material substitution ■ Waste reduction ■ Waste recycling ■ Dematerialisation of the service sector (e.g. implementing resource efficiency measures) ■ Sustainable building (e.g. new build) ■ Efficient use of existing infrastructure 	<ul style="list-style-type: none"> ■ Lifetime optimisation (e.g. using goods for their technical lifetime) ■ Goods to services (e.g. renting instead of buying some products) ■ Reducing food waste ■ Dietary changes ■ Restorative economy (e.g. reuse and refurbishment) ■ Public sector procurement

Source: WRAP (2010)⁶⁸

According to the United Nations Environment Programme (UNEP), there are a number of international scientific assessments that demonstrate the importance of resource efficiency with regards to achieving a sustainable planet and economy.⁶⁹

Assessments such as the Millennium Ecosystem Assessment⁷⁰, the Global Environmental Outlook⁷¹ and the 4th Assessment Report of the Intergovernmental Panel on Climate Change⁷², contribute to the public’s understanding of the way ecosystems and the atmosphere are responding to patterns of unprecedented consumption and production. They highlight the importance of the need for innovation in more resource efficient production and consumption in order to secure sustainable economic growth.

⁶⁶ WRAP Full report (2010) *Securing the Future: The Role of Resource Efficiency* <http://www.wrap.org.uk/content/meeting-uk-climate-change-challenge-0>

⁶⁷ Ibid (p.7)

⁶⁸ Ibid (p.20/21)

⁶⁹ UNEP, Resource Efficiency Programme [online]. Available at <http://www.unep.org/resourceefficiency/Home/UNEPsResourceEfficiencyProgramme/tabid/55552/Default.aspx>

⁷⁰ UNEP, Millennium Ecosystem Assessment [online]. Available at <http://www.unep.org/maweb/en/about.aspx>

⁷¹ UNEP, Global Environmental Outlook [online]. Available at <http://www.unep.org/geo/geo5.asp>

⁷² IPCC, 4th Assessment Report of the Intergovernmental Panel on Climate Change Summary report . Available at http://www.ipcc.ch/publications_and_data/ar4/syr/en/contents.html

A DEFRA study identified up to £22 billion in saving available to UK businesses from more efficient use of raw materials and avoiding waste.⁷³

For more information on the circular economy see:

- The Green Alliance - a charity and independent think tank focused on giving support to businesses, NGO's and political communities on environmental solutions:
http://www.green-alliance.org.uk/page_816.php
- The Ellen MacArthur Foundation - works in education, business innovation and analysis to promote the transition to such a circular economy:
<http://www.ellenmacarthurfoundation.org/circular-economy/circular-economy/the-circular-model-an-overview>

Annex 2: Key recommendations from the Mills Review⁷⁴

- The DOE should make the outcome of a waste sector that complies with the law, protects the environment and underpins resource efficiency, a priority.
- Develop a comprehensive strategy, with a detailed action plan, to achieve this outcome, which initially focuses on preventing waste crime.
- Create a new single Directorate within NIEA to bring together the existing regulatory and enforcement teams along with a new Intelligence Unit to achieve this outcome.
- Adopt and develop the concept of “intelligent regulation” in order to be sufficiently adaptive to deal with a range of operators, from the criminal to the compliant.
- Change the current appointment and recruitment processes to allow the targeted recruitment and appointment of staff with the right aptitudes, skills and experience to carry out regulatory work. This should be supported by structured training, professional development and a defined career structure.
- Review in an integrated way the need for additional powers to carry out this work by means of a Task and Finish Group and involving all relevant DOE units including Planning with legal support and input from the PSNI.
- Make it harder for waste to fall into the hands of criminal operators by strengthening the Duty of Care provisions, Fit & Proper Person Test and systems for monitoring and analysing waste flows.

⁷³ DEFRA The Economics of Waste and Waste policy (2011) <https://www.gov.uk/government/publications/the-economics-of-waste-and-waste-policy>

⁷⁴ Mills Report <https://www.daera-ni.gov.uk/publications/review-waste-disposal-mobuoy-site-and-lessons-learnt-future-regulation-waste-industry>

- Limit the number of waste authorisations to the number necessary to meet Northern Ireland's projected waste needs and create the necessary new strategic waste infrastructure which can be more easily regulated and monitored.
- Make changes to the current planning enforcement policy to no longer allow the granting of retrospective planning permission for sand and gravel workings.
- Work through the Department of Justice to persuade the Judiciary of the seriousness of waste crime not just to the environment but to the economy of Northern Ireland, and to encourage them to ensure that sentencing for these offences is comparable to that of the rest of the UK.
- Create a new sanction in the legislation to make the polluter pay to remediate or remove illegally deposited waste.
- Ensure that the DOE works more closely with other Government Departments and Agencies in Northern Ireland, with the other Environment Agencies in the UK and Ireland and through relevant European organisations and initiatives, in order to combat waste crime and create a resource efficient Northern Ireland.